A1 Cancld.

with 48 columns on each deck. At any instant of time, for the exemplary antenna illustrated, only one third of the columns, a 120-degree sector, are excited to form a beam.

IN THE CLAIMS

Cancel Claims 1 and 6 without prejudice or disclaimer of the subject matter therein.

A2 B

2. (Amended) The antenna of Claim 20, wherein the ground surface structure is a magnetic conductor surface at an RF frequency band of interest, said ground plane structure functioning as a D.C. short and as a mirror which reflects an RF field in said frequency band with virtually no phase reversal.

3. (Amended) The antenna of Claim 20, wherein the protrusions form a very thin layer of a densely packed two-dimensional (2-D) periodic structure on top of a conducting surface, the periodic structure shielding the conducting surface underneath from inducing an image current to cancel the propagating E-field.

B

4. (Amended) The antenna of Claim 20, wherein the array of metal protrusions are formed as metal plates connected to the metal sheets by vertical posts.

A3 B

7. (Amended) The antenna of Claim 20 wherein the array further includes a true-time-delay corporate feed network connected to the radiating elements, wherein time delay differences in contributions by the individual radiating elements to a composite array signal due to the separation of the elements along the axis are equalized by the true-time delay corporate feed network.

A4

9. (Amended) The array of Claim 20 wherein each flared notch radiating element includes a pair of flared dipole wings.

A5 cont. B

13. (Amended) The antenna of Claim 12, wherein the beam-forming network includes a true-time-delay network, wherein time delay differences in